

WHAT IS CLAIMED IS:

Sub 1  
1. A controller device for controlling a plurality of target devices connected to a data bus for transferring data in a predetermined communication format, said controller device comprising:

first command generating means for generating a first reserve command for inhibiting any one of said target devices from getting accessed by another controller device or by any other target device;

second command generating means for generating a second reserve command for reserving any one of said target devices so that the reserved target device is allowed to accept a specific command transferred at least from another target device; and

transmitting means for selectively transmitting to said target devices said first reserve command generated by said first command generating means and said second reserve command generated by said second command generating means.

2. A controller device according to claim 1, wherein said specific command transferred from said another target device provides authentication between said target devices.

3. A controller device according to claim 1,

wherein said specific command transferred from said another target device identifies attributes of any one of said target devices.

4. A controller device according to claim 1, wherein said predetermined communication format complies with IEEE 1394 criteria.

5. A controller device according to claim 1, further comprising operating means operated to select either said first reserve command generated by said first command generating means or said second reserve command generated by said second command generating means for transmission to said target devices.

6. A communication system comprising:

a controller device;

a data bus for transferring data in a predetermined communication format; and

a plurality of target devices connected via said data bus to said controller device;

wherein said controller device comprises:

first command generating means for generating a first reserve command for inhibiting any one of said target devices from getting accessed by another controller device or by any other target device;

second command generating means for generating a

second reserve command for reserving any one of said target devices so that the reserved target device is allowed to accept a specific command transferred at least from another target device;

third command generating means for generating a bus reset command for resetting said data bus for transferring data in said predetermined communication format; and

transmitting means for selectively transmitting to said target devices said first reserve command generated by said first command generating means, said second reserve command generated by said second command generating means, and said bus reset command generated by said third command generating means; and

wherein each of said target devices comprises:

receiving means for receiving from said transmitting means said first reserve command generated by said first command generating means, said second reserve command generated by said second command generating means, and said bus reset command generated by said third command generating means;

judging means for judging whether a reserve command received by said receiving means is said first reserve command or said second reserve command; and

controlling means for validating a reserve command received by said receiving means upon elapse of a first predetermined time following a bus reset if the reserve command thus received is judged by said judging means to be said first reserve command; said controlling means further validating a reserve command received by said receiving means upon elapse of a second predetermined time following said bus reset, said second predetermined time being shorter than said first predetermined time, if the reserve command thus received is judged by said judging means to be said second reserve command.

7. A communication system according to claim 6, wherein said specific command transferred from said another target device provides authentication between said target devices.

8. A communication system according to claim 6, wherein said specific command transferred from said another target device identifies attributes of any one of said target devices.

9. A communication system according to claim 6, wherein said predetermined communication format complies with IEEE 1394 criteria.

10. A communication system according to claim 6, further comprising operating means operated to select

either said first reserve command generated by said first command generating means or said second reserve command generated by said second command generating means for transmission to said target devices.

11. A communication system comprising:

a controller device;

a data bus for transferring data in a predetermined communication format; and

a plurality of target devices connected via said data bus to said controller device;

wherein said controller device comprises:

first command generating means for generating a first reserve command for inhibiting any one of said target devices from getting accessed by another controller device or by any other target device;

second command generating means for generating a second reserve command for reserving any one of said target devices so that the reserved target device is allowed to accept a specific command transferred at least from another target device; and

transmitting means for selectively transmitting to said target devices said first reserve command generated by said first command generating means and said second reserve command generated by said second command

generating means; and

wherein each of said target devices comprises receiving means for selectively receiving said specific command from said another target device in accordance with the reserve command transmitted from said transmitting means.

12. A communication system according to claim 11, wherein said specific command transferred from said another target device provides authentication between said target devices.

13. A communication system according to claim 11, wherein said specific command transferred from said another target device identifies attributes of any one of said target devices.

14. A communication system according to claim 11, wherein said predetermined communication format complies with IEEE 1394 criteria.

15. A communication system according to claim 11, further comprising operating means operated to select either said first reserve command generated by said first command generating means or said second reserve command generated by said second command generating means for transmission to said target devices.

16. A controlling method for allowing a controller

device to control a plurality of target devices connected to a data bus for transferring data in a predetermined communication format, said controlling method comprising the steps of:

selecting either a first reserve command for inhibiting any one of said target devices from getting accessed by another controller device or by any other target device, or a second reserve command for reserving any one of said target devices so that the reserved target device is allowed to accept a specific command transferred at least from another target device; and

transmitting the reserve command thus selected.

17. A controlling method for use with a communication system comprising a controller device, a data bus for transferring data in a predetermined communication format, and a plurality of target devices connected via said data bus to said controller device, said controlling method comprising the steps of:

receiving either a first reserve command for inhibiting any one of said target devices from getting accessed by another controller device or by any other target device, or a second reserve command for reserving any one of said target devices so that the reserved target device is allowed to accept a specific command

transferred at least from another target device;

judging whether the received reserve command is said first reserve command or said second reserve command;

receiving a bus reset command for designating a reset of said data bus for transferring data in said predetermined communication format;

validating the received reserve command upon elapse of a first predetermined time following reception of said bus reset command if the received reserve command is judged to be said first reserve command; and

validating the received reserve command upon elapse of a second predetermined time following reception of said bus reset command, said second predetermined time being shorter than said first predetermined time, if the received reserve command is judged to be said second reserve command.